

Remarks

Introduction

Claims 1-21 are at issue. No claims have been allowed.

Rejections Under 35 U.S.C. §112 and other formalities

The Examiner objected to claim 3 under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Responsive thereto, claim 3 has been amended.

The Examiner objected to claim 18 because of the following informalities: The phrase “metals alloys” should be changed to “metal alloy.” Responsive thereto, Applicants have amended claim 18

The Examiner has rejected claims 9 and 18 under 35 U.S.C. § 112. The Examiner has rejected claim 9 because the use of the word “including” is confusing. Responsive thereto, Applicants have amended claim 9. The Examiner rejected the phrase “other conductive materials” in claim 18 as being indefinite. Responsive thereto, Applicants have amended claim 18.

Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 1, 3-5, 8, and 10-12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,885,211 to Tang et al. Tang et al discloses in Example 3 an organic electroluminescent device comprising a glass substrate, ITO anode, ATQ-1 layer, an Alq layer and a rare earth cathode.

Applicants have amended claim 1 to now call for an electron-injecting transparent cathode comprising an alkali fluoride or an alkaline earth fluoride layer and a rare-earth metal or a rare-earth metal alloy coevaporated with a conductive metal. The ‘211 patent to Tang does not disclose a fluoride layer as claimed and therefore cannot anticipate Applicants’ amended claim 1. Further, claims 3-5, 8, and 10-12 all depend from claim 1 and include the same limitations and also cannot be anticipated by Tang ‘211. Applicants respectfully request that the Examiner withdraw this § 102 rejection.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 2, 6, 7 and 9 under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 4,885,211) or Tang in view of Lee et al. (US

2003/0082403) (claim 7). However, in view of Applicants' amendment to claim 1, which now requires that the cathode comprise an alkali fluoride or an alkaline earth fluoride layer, Applicants respectfully submit that this rejection has been overcome. Neither Tang alone or in combination with Lee teach or suggests a cathode comprising a fluoride layer as claimed.

The Examiner rejected claims 13-15 and 17-21 under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US2004/0094768 A1). Yu et al. teaches a method for production of full-color subpixelated OLEDs in which the walls forming the sub-pixels do not require surface treatment, e.g., do not require CF₄ treatment. Yu generally mentions materials that may be used for the cathode and notes in passing that a multilayer cathode may be employed for the EL devices disclosed therein.

"In a proper obviousness determination . . . the changes [from the prior art] must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's device." In re Chu, 66 F.3d 292, 298 (Fed. Cir. 1995), citing Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 935 (Fed. Cir. 1990); also see In re Gordon, 733 F.2d 900, 902 (Fed.Cir.1984) (although prior art device could have been turned upside down, that did not make the modification obvious unless the prior art fairly suggested the desirability of turning the device upside down).

Applicants submit that Yu is not particularly germane to Applicants' claimed cathode material. Yu deals with a different problem, viz., avoiding pre-treatment with CF₄. Thus, a skilled artisan reading Yu is not provided any teaching or suggestion to modify the generic cathode disclosure provided by Yu to arrive at an inventive trilayer cathode structure as claimed by Applicants' claim 13. There is a fundamental gap between the naked suggestion in Yu of the possibility of a multilayer cathode and Applicants' specifically claimed trilayer cathode. Applicants respectfully request that the Examiner withdraw this rejection.

Even to the extent that Yu discloses some of the individual elements as recited in Applicants' claim 13, e.g., a LiF patterned layer, and discloses other materials claimed in Applicants' trilayer cathode, there is simply no motivation or suggestion in Yu to assemble those elements and add others to arrive at Applicants' specifically claimed trilayer structure. Indeed, the Federal Circuit has repeatedly held that using the applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings is improper hindsight. See, e.g., Grain Processing Corp v. American Maize-Products Co., 840 F.2d 902, 907 (Fed. Cir. 1988).

The Examiner rejected claim 16 under 35 U.S.C. 103(a) as being unpatentable over

Yu et al. (US 2004/0094768 A1) in view of Gotou (US 2003/0113581 A1). However, the Gotou publication does not cure the deficiencies of the primary reference, Yu et al. That is, there is no teaching or suggestion in Yu of the specific trilayer structure claimed by Applicants' claim 13. Applicants therefore respectfully request that the Examiner withdraw this rejection.

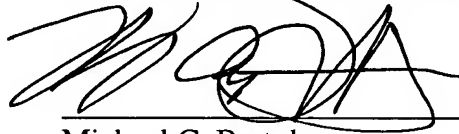
Final Remarks

Applicants submit that none of the prior art discloses or suggests the combination of elements claimed in the claims pending above. Accordingly, Applicants respectfully request that the Examiner issue a Notice of Allowance in due course.

If necessary, please consider this a Petition for Extension of Time to effect a timely response. Please charge any additional fees or credits to the account of Bose McKinney & Evans, LLP Deposit Account No. 02-3223. In the event that there are any questions related to these amendments or to the application in general, the undersigned would appreciate the opportunity to address those questions directly in a telephone interview to expedite the prosecution of this application for all concerned.

Respectfully submitted,

BOSE McKINNEY & EVANS, LLP

A handwritten signature in black ink, appearing to read 'Michael C. Bartol', is written over a horizontal line.

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